

Where concrete shoulder deficient in strength is removed and replaced, the replacement pavement, if acceptable, will be paid at the contract unit price for *Concrete Shoulders Adjacent to \_\_\_" Pavement*, which price and payment will be full compensation for all work of placement, removal and replacement.

**(D) Multiple Adjustments in Price**

Concrete shoulder found deficient in both thickness and strength will be evaluated by the Engineer to determine if it may be permitted to remain in place. Concrete shoulder permitted to remain in place will be paid at a reduced price determined by successively multiplying the contract price by the appropriate factor indicated for each deficiency.

**(E) Pay Items**

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Concrete Shoulders Adjacent to ___" Pavement	Square Yard

## SECTION 725 FIELD LABORATORY FOR PORTLAND CEMENT CONCRETE PAVEMENT

**725-1 DESCRIPTION**

Perform the work covered by this section including, but not limited to, providing and maintaining the building or trailer and the curing shelter for the exclusive use of the Engineer at concrete plants producing Portland cement concrete for use in pavement to be constructed on the project; furnishing water, heat, electricity and other utility services; and any other equipment that may be necessary.

**725-2 GENERAL REQUIREMENTS**

Furnish and maintain for the exclusive use of the Engineer a field office and laboratory in which to house and use all testing equipment needed. Only Department representatives will have unattended access to these facilities.

Provide a field office that is dust and water tight, floored, and has an adequate foundation so as to prevent excessive floor movement. Provide a field office that contains 6 or more 110 V electrical double outlets properly grounded and spaced; a telephone; at least 2 windows, satisfactory locks on all doors and windows; adequate lighting, heating and air conditioning; sink; running water to sink; and satisfactory exhaust fan. Provide a field office that meets the following approximate minimum requirements: 200 sf of floor space; 9 ft interior width; 6.5 ft interior height; 20 sf of counter space, 2.5 ft to 3 ft high and 2 ft deep with cabinets or drawers below the counter top; and 6 sf of desk space not enclosed with cabinets. Locate the office in a position that will permit full view of the plant from the interior of the office. At or near the office, furnish toilet facilities, with waste disposal, available for use of the Department personnel. Maintain these toilets in a neat and clean condition.

Provide a laboratory trailer adjacent to the field office that is at least 400 sf in area, approximately 20 ft wide, 20 ft long and 7 ft in height. Provide a laboratory trailer that contains 6 or more 110 V electrical double outlets properly grounded and spaced; satisfactory locks on all doors and windows; adequate lighting, heating and air conditioning; sink; running water to sink; and satisfactory exhaust fans. Provide two workbenches that are approximately 10 ft long, 2 ft wide and 2.5 ft high. One workbench shall be installed inside the trailer and the other across the end of the trailer. Provide a shelter or roof over the outside workbench to provide protection from weather. Provide, in the laboratory, an adequate number of water storage tanks to hold all acceptance beams and cylinders and any additional beams and cylinders made for the purpose of determining early strengths.

**Section 725**

Construct the water storage tanks of non-corroding materials and have requirements for automatic control of the water temperature. Maintain the water in the tank at a temperature of 73°F ± 3°F. Equip each tank with a recording thermometer with its bulb located in the water. Provide sufficient tank volume to maintain all beams and cylinders, stored with the long axis vertical, in a fully submerged condition for the duration of the required curing period. Furnish a wooden mixing board at least 3/4" thick and approximately 4 ft wide and 4 ft long that is covered on one side with sheet metal of at least 22 gauge, at the shelter. Provide facilities to maintain the test beams and cylinders at temperature between 60°F and 80°F during initial curing.

**725-3 MEASUREMENT AND PAYMENT**

*Field Laboratory Rental, Portland Cement Concrete Pavement* will be paid at the contract lump sum price which will be made for furnishing and maintaining all field laboratories available for use by the Engineer at any concrete plant producing Portland cement concrete for use in pavement to be constructed on the project. Partial payments for field laboratory rental will be made with the first and last partial pay estimates which include concrete pavement or concrete shoulders. Payments will be made at the rate of 50% of the lump sum price for *Field Laboratory Rental, Portland Cement Concrete Pavement* on each of these partial pay estimates.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Field Laboratory Rental, Portland Cement Concrete Pavement	Lump Sum